CommData

Aisle Containment System

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V-Line™ Aisle Retractable Roof Pod System

Installation Manual

VCRP2054RB & VCRP1560RB

Overview

The The V-Line™ Aisle Retractable Roof Pod System is the only retractable roof system for both cold and hot aisle containment. It combines cost effectiveness ease of installation, fire safety, and good looks. Over the long term the V-Line Aisle Retractable Roof Pod System will reduce the “total cost of ownership” by making it easier to fully separate cold supply air and hot exhaust air, improving cooling efficiency.

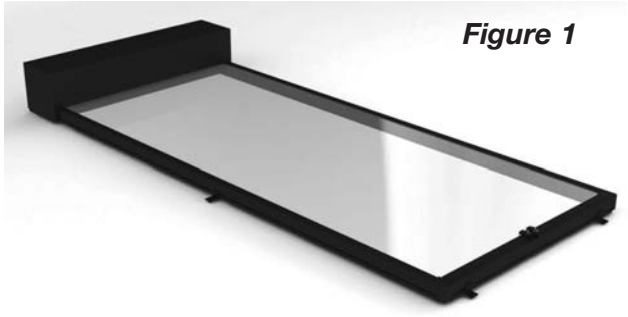
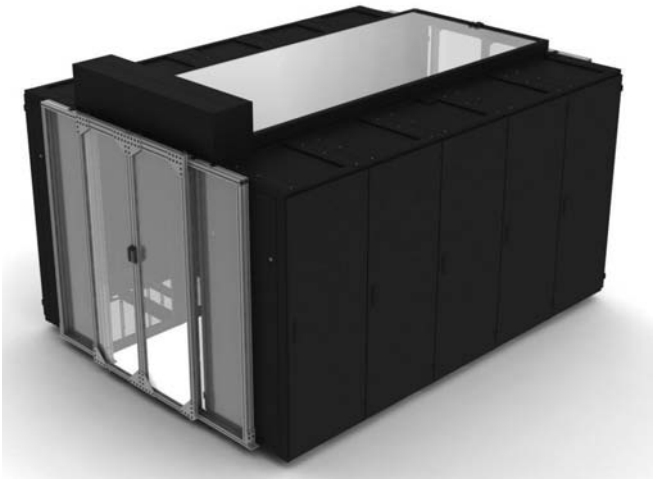


Figure 1

Housing
ESD Fire Resistant Roof
UL/FM Rated Fir Suppression Link



Incorporating a high-grade aluminum track, UL and FM rated fire suppression links, and ESD fire resistant vinyl, the V-Line Aisle Retractable Roof Pod System has been engineered to provide long lasting reliability in operation. The V-Line Aisle Retractable Roof Pod System includes all of the components and fasteners required to assemble and install the partition system. V-Line Aisle Containment Retractable Roofs can be installed quickly and easily to a range of V-Line Cabinets.

As shown in Figure 1, the V-Line Aisle Containment Retractable Roof System is modular in design. It comes in two model widths (1) 60 inches (1.52m) wide and (2) 84 inches (2.13m) wide and is available in single span lengths of up to
30 feet (9.14m).

Safety & Quality Assurance

The following recommendation should be carefully observed as part of any door installation. In particular, the safety of the installers must be placed ahead of all other considerations. Some of the following **warnings** or **cautions** have been highlighted in the appropriate sections of the manual.

- ✔ DO READ and follow the V-Line Aisle Retractable Roof Pod installation manual.
- ✘ DO NOT lift the V-Line Aisle Retractable Roof Pod on your own.
- ✘ DO NOT drill into structures without first ensuring that no electrical wires are in the area of the drilling.
- ✔ ALWAYS comply with local or regional health and safety regulations.
- ✔ ALWAYS wear personal protective equipment (PPE) when drilling or attaching the door. PPE includes: Gloves, Safety eyeglasses, Hardhats.
- ✘ NEVER leave the assembly unattended until the installation has been completed.

Cautions and Warnings

The manual contains important information of the installation of your V-Line Aisle Retractable Roof Pod System. We strongly recommend that you read and follow the instruction contained in this manual. At several points in the manual items of special interest or significant impact are highlighted by one of the following notices.

Warning: Hazards or unsafe practices that could cause personal injury or death.

Caution: Hazards or unsafe practices that could cause product damage.

Note: Significant points of interest.

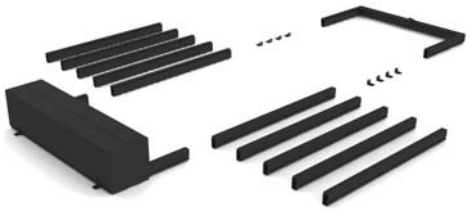
***Warning**: Details subject to change without written notice.*

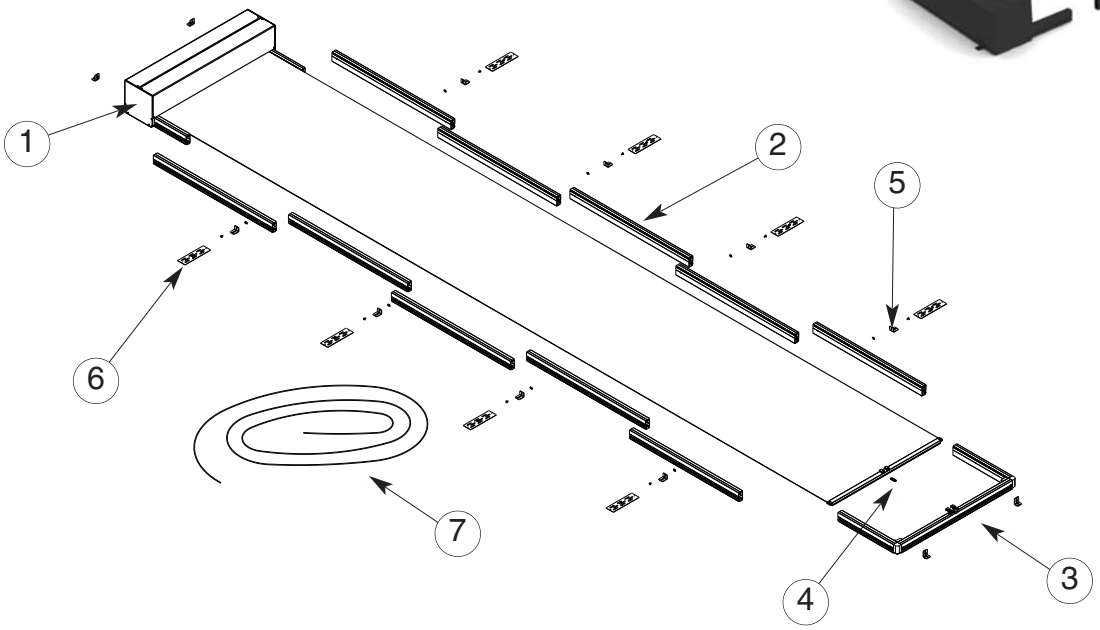
Component Overview

The roof pod assembly comes crated and comprises of five groups of components:

1. (1) Roof Pod Cassette
2. (10) Side Rails
3. (1) End Rail
4. (1) Thermal Buckle
5. (12) Angled Mounting Brackets with Hardware
6. (8) Perforated OZIP Plates with Hardware
7. (1) Length of Rope

Tools Required:
- **Rubber Mallet**
- **Screw Gun**
- **Measuring Tape**
- **Hex Key 3/16”**





Installed Planning

Determine where the roof pod is to be installed and which cabinets they will be mounted to. Generally the roof pod is to be installed at one end of a row of adjacent cabinets. Ensure that there is sufficient clearance overhead to accommodate the roof pod structure and ensure that sufficient clearance exists to allow the roof pod to be positioned without encroaching or obstructing incoming services, etc.

Warning: The V-Line Aisle Containment Retracting Roof Pod exceeds 150 lbs (68kg) when fully assembled. Care should be taken to ensure that the relevant health and safety regulation are adhered to when lifting. It is suggested that the assembly is lifted into position using a suitable hand operated lift (similar to the one shown at right).

***Warning**: Details subject to change without written notice.*

Assembly Procedure

Step 1 - Unpack the roof pod assembly from the crate

Caution: Do not cut into the aluminum or roof membrane material as you separate the packing material from the roof pod. Take care not to damage or mark the finish, which would be unsightly.

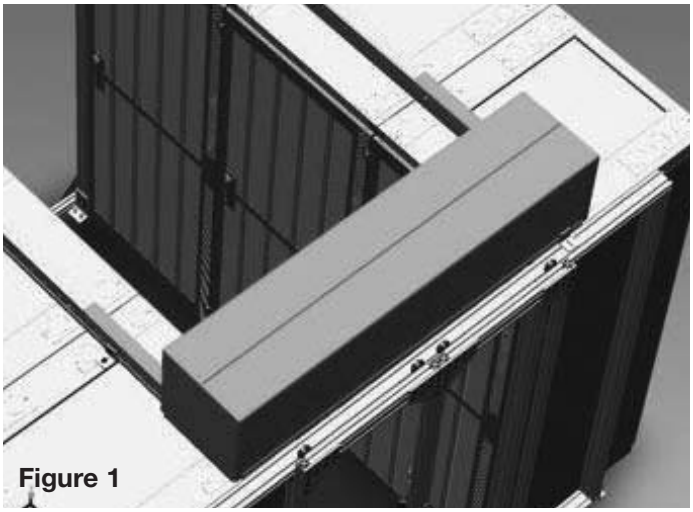


Figure 1

Step 2 - Position the roof pod cassette in position

Using suitable lifting method, position the roof pod into place to span the contained aisle, resting on top of the two adjacent cabinets.

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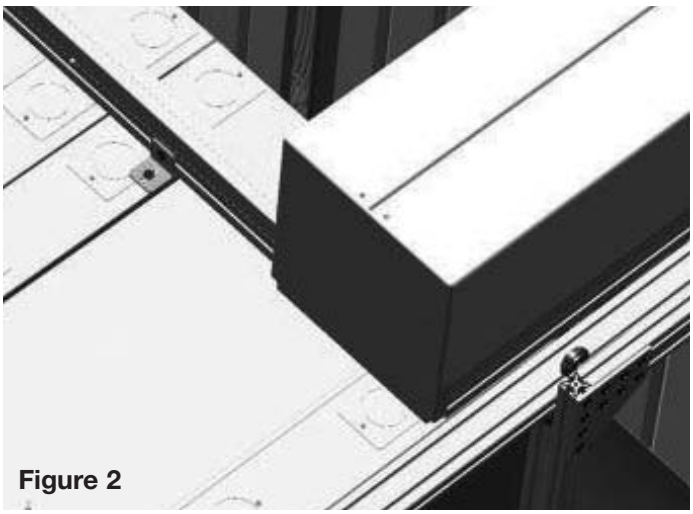

Figure 2

Step 3 - Secure the roof pod cassette in position

- Attach the “L” brackets to rail portion of cassette and after making sure the cassette and rails are square to the aisle and flush with the end of the cabinets, secure with self-tapping screw provided.

- Swap out the standard OZIP plate for the perforated OZIP plate and using the brackets provided, secure the cassette to the perforated OZIP plate.

Note: If sliding doors are used it is recommended that the cassette is fixed to the sliding door top header rail using the brackets provided.

***Warning**: Details subject to change without written notice.*

Step 4 - Install the side rails

- Place the side rails on top of the cabinets and in line with the starter rails on the housing.

Note: The side rails are labeled and are designed to mate with the corresponding letters.

- Attach the side rails into the end rails or housing until they lock with the push buttons.

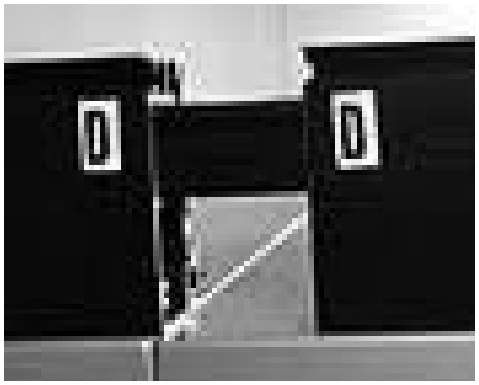

Figure 3

Step 5 - Install the end rail attachment

- Slide the end rail attachment (pictured at right) into the side rails.
- Verify that when inserted fully it will be even with the ends of the server racks.
- Push the end rail onto the two side rails until the push buttons lock.
- Use a soft rubber mallet to ensure the side rails fully seat into the side rails.

Note: The rails can be cut down for a custom fit if required. Use appropriate equipment and make sure ends are cut flush.

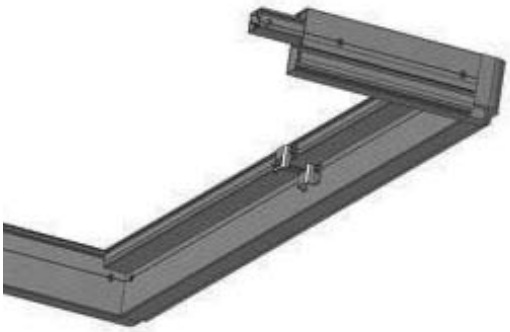

Figure 4

Step 6 - Secure the roof pod

- Refer to Step 3 to secure the end rail to cabinets and end of aisle door assembly (if applicable) using the supplied “L” brackets, perforated OZIP plates and hardware.
- Verify roof is square and secure before proceeding to step 7.

Note: It is critical that the side rails be spaced exactly equal from the housing to the end rail. If spaced incorrectly the roof may sag excessively. Verify that rails are true and straight and parallel to each other for entire distance of travel before securing to racks. Once racks are in correct positions, secure the side rails and end as described in step 1. Do not exceed 10 feet (3.0m) between attachment points.

***Warning**: Details subject to change without written notice.*

Step 7 - Deploy the roof

Note: If you are pulling the roof out to over 70% of its overall maximum (over 21 feet for the 30 foot model) you will need to to use the Rope Pulley Assembly as described below. (This may also be an advantage to use the shorter lengths when deploying with just one installer.)

- To deploy by hand (short lengths only) grasp the leading edge of the roof panel as it exits the housing and pull smoothly towards the end rail.
- Have the fusible link (item #4) ready to drop into place when the roof is fully deployed. Note that the sliding roof is spring loaded. This will require two people to pull the roof into place.

Figure 5

Figure 6

Step 8 - Deploy the roof (Rope Assembly)

- Next - Rig the ropes by running it back and forth from end rail to leading edge so that is resembles pictures at right (Figure 7).
- Then tie a simple knot in the end of the rope after threading it back down through the remaining hole in the end rail. See example below reference Figure 9.
- As you pull the rope the leading edge will be drawn toward the end assembly.
- Make sure the fusible link is close at hand to fastening the roof system when it's fully deployed.

Figure 7

Rope Pulley Assembly

- *The rope pulley assembly is connected to the Rail End.*
- *Start by threading one end of the rope up through the end rail in the hole guide*

Figure 9

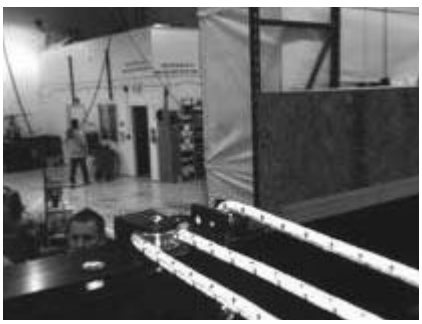

Figure 8

Warning: The V-Line Aisle Containment Retracting Roof Pod roof should always be returned to the housing in a controlled manner. Always use the rope system during maintenance. NEVER release the roof to slide back at full speed. Full speed returns should only be done during an actual fire suppression event.

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Step 9 - Connect fire suppression link

- There is one fire suppression link that attaches the end rail with the sliding rail.

- Pull the rope through the rope ratchet until the sliding rail comes into contact with the end rail clip. Push the sliding rail onto the clip until it snaps together with the fire suppression link.

Note: You will need to have someone hold the slide rail in place while another attaches the fire suppression link due to the spring-loaded tension.

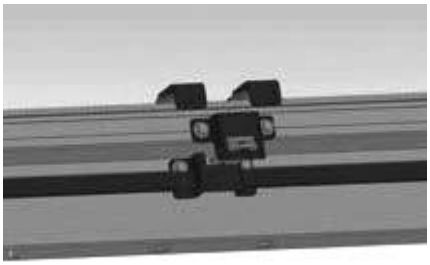


Figure 10

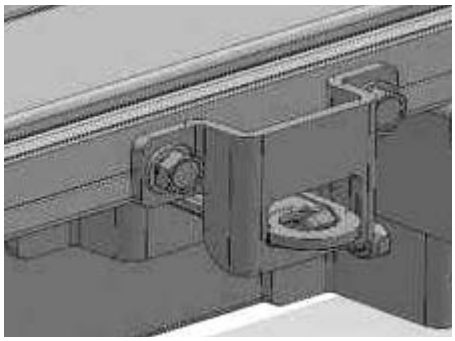
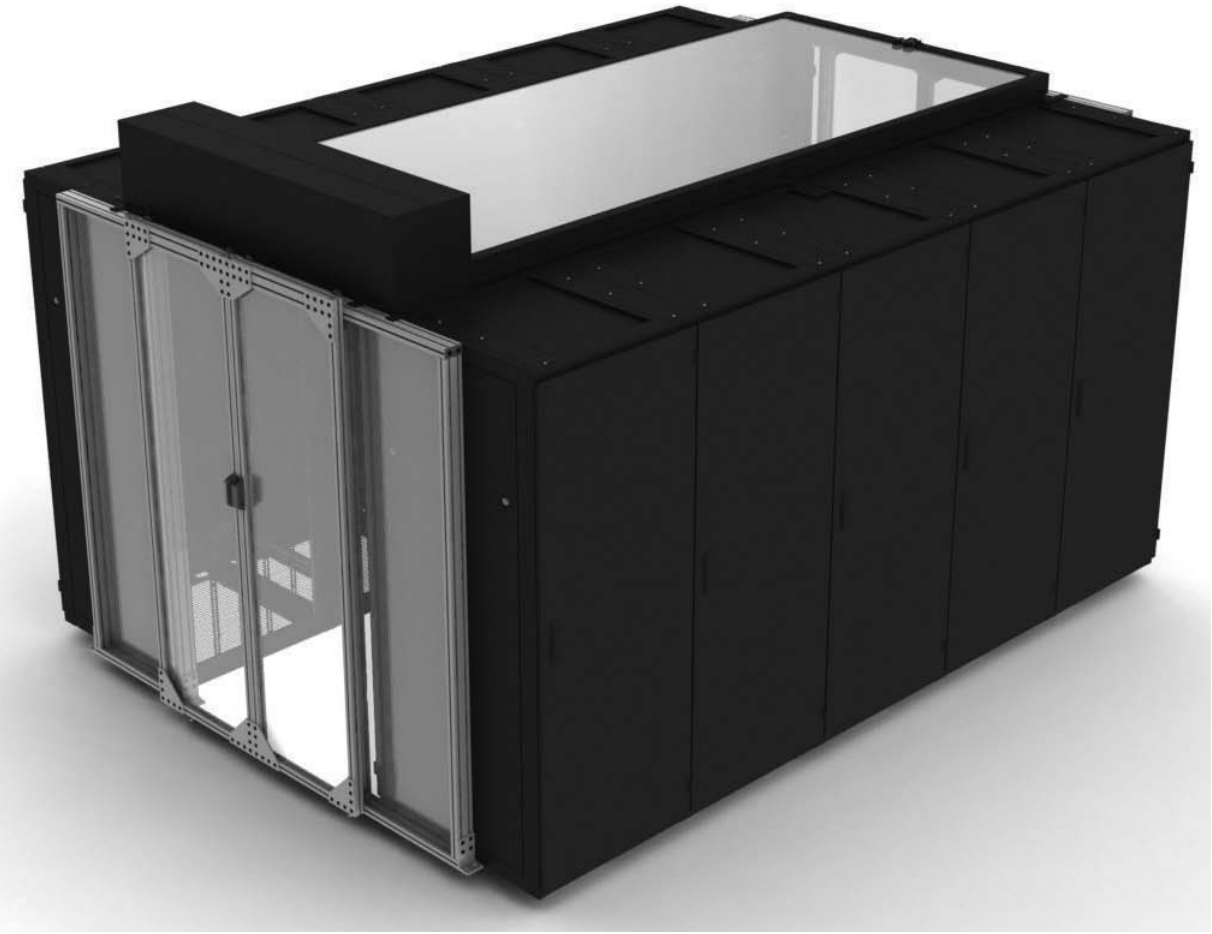


Figure 11



V-Line Aisle Containment Solution

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